

CLAIMS

1. An article management system for managing articles in a given space, comprising:

a robot for executing a handling job for an article;

5 robot controlling means for making said robot execute the handling job in accordance with a job instruction;

sensing means for detecting a state of the space;

article identifying means for identifying, when an article is handled by a movable body, said handled article in response to a detection result obtained by said sensing means;

10 and

article handling subject identifying means for identifying, when an article is handled by a movable body, an article handling subject that handles said article in response to the detection result obtained by said sensing means,

15 wherein when said movable body that handles said article is said robot, said article handling subject identifying means identifies a subject having issued the job instruction as said article handling subject that handles said article.

2. The system of Claim 1, further comprising:

a database for storing information of handling rights set with respect to the articles; and

20 handling right determining means for determining, on the basis of the information stored in said database, whether or not said article handling subject has a handling right of said article in response to an identification result about said article obtained by said article identifying means and an identification result about said article handling subject obtained by said article handling subject identifying means.

25 3. The system of Claim 2,

wherein said robot controlling means stops the handling job of said robot when it is found, on the basis of a determination result obtained by said handling right determining means, that said subject having issued the job instruction does not have a handling right of said article.

5 4. The system of Claim 2, further comprising handling right setting/changing means for setting and/or changing the handling rights and storing the handling rights in said database.

 5. The system of Claim 4,
 wherein said handling right setting/changing means sets and/or changes the
10 handling rights on the basis of the detection result obtained by said sensing means.

 6. The system of Claim 5,
 wherein said database stores handling history information of the articles on the basis of the detection result obtained by said sensing means, and

 said handling right setting/changing means sets and/or changes the handling rights
15 of the articles on the basis of said handling history information of the articles stored in said database.

 7. The system of Claim 5,
 wherein said sensing means detects a position of an article present in the space,
 and

20 said handling right setting/changing means sets and/or changes a handling right of said article in accordance with the position of said article detected by said sensing means.

 8. The system of Claim 7,
 wherein when an article is contained in a container, said handling right setting/changing means makes a handling right of said article accord with a handling right
25 of said container.

9. The system of Claim 5,

wherein said sensing means detects a temperature of an article, and

said handling right setting/changing means sets and/or changes a handling right of
said article in accordance with the temperature of said article detected by said sensing
5 means.

10. The system of Claim 5,

wherein said sensing means detects shape change of an article, and

said handling right setting/changing means sets and/or changes a handling right of
said article in accordance with the shape change of said article detected by said sensing
10 means.

11. The system of Claim 5,

wherein said sensing means detects a weight of an article, and

said handling right setting/changing means sets and/or changes a handling right of
said article in accordance with the weight of said article detected by said sensing means.

15 12. The system of Claim 5,

wherein said sensing means detects a position of a movable body, and

said handling right setting/changing means sets and/or changes a handling right of
an article in accordance with a detection result obtained by said sensing means whether or
not there is a movable body in the vicinity of said article.

20 13. The system of Claim 5,

wherein said handling right setting/changing means sets and/or changes a
handling right of an article when a given state is attained in the space.

14. The system of Claim 4,

wherein said robot controlling means makes said robot automatically execute the
25 handling job by issuing the job instruction on the basis of a state of the space and the

handling rights set and/or changed by said handling right setting/changing means.

15. The system of Claim 4,

wherein said handling right setting/changing means sets a handling right of an article to a movable body and/or a movable body group consisting of a plurality of
5 movable bodies.

16. The system of Claim 4,

wherein said handling right setting/changing means sets a handling right with respect to each article and/or each article group consisting of articles having the same attribute.

10 17. An article management system for managing articles in a given space, comprising:

a robot for executing a handling job for an article;

robot controlling means for making said robot execute the handling job in accordance with a job instruction;

15 a database for storing information of handling rights set with respect to the articles; and

handling right determining means for determining, on the basis of said information stored in said database, whether or not a subject having issued the job instruction has a handling right of said article related to the handling job,

20 wherein said robot controlling means determines details of the handling job of said robot in response to a determination result obtained by said handling right determining means.

18. An article management server for managing articles in a given space, comprising:

25 robot controlling means for making a robot execute a handling job in accordance

with a job instruction;

article identifying means for identifying, when an article is handled by a movable body, said handled article in response to a detected state of the space; and

article handling subject identifying means for identifying, when an article is
5 handled by a movable body, an article handling subject that handles said article in response to said detected state,

wherein when said movable body that handles said article is said robot, said article handling subject identifying means identifies a subject having issued the job instruction as said article handling subject that handles said article.

10 19. The server of Claim 18, further comprising:

a database for storing information of handling rights set with respect to the articles; and

handling right determining means for determining, on the basis of said information stored in said database, whether or not said article handling subject has a
15 handling right of said article in response to an identification result about said article obtained by said article identifying means and an identification result about said article handling subject obtained by said article handling subject identifying means.

20 20. The server of Claim 19, further comprising handling right setting/changing means for setting and/or changing the handling rights and storing the handling rights in said database.

21. The server of Claim 20,

wherein said handling right setting/changing means sets and/or changes the handling rights in accordance with a state of the space.

25 22. An article management method for managing articles in a given space, comprising:

a detecting step of detecting a state of the space;

an article identifying step of identifying, when an article is handled by a movable body, said handled article in response to a detection result obtained in the detecting step; and

5 an article handling subject identifying step of identifying, when an article is handled by a movable body, an article handling subject that handles said article in response to the detection result obtained in the detecting step;

 wherein when said movable body that handles said article is a robot, a subject having issued a job instruction to said robot is identified as said article handling subject
10 that handles said article in the article handling subject identifying step.

23. The method of Claim 22, further comprising a handling right determining step of determining whether or not said article handling subject has a handling right of said article in response to an identification result obtained in the article identifying step and an identification result obtained in the article handling subject identifying step.

15 24. The method of Claim 23, further comprising a handling right setting step of setting a handling right in accordance with the state of the space.

25. The method of Claim 23, further comprising a handling right changing step of changing a handling right in accordance with the state of the space.